

IN THE UNITED STATES DESIGNATED/ELECTED OFFICE

International Application No. : PCT/EP2004/013662
International Filing Date : 1 December 2004 (01.12.2004)
Priority Date(s) Claimed : 24 December 2003 (24.12.2003)
Applicant(s) (DO/EO/US) : Gerard MOINET, et al.

Title: ACIDIC QUINOLINE DERIVATIVES AND THEIR USE FOR THE PREVENTION
AND/OR TREATMENT OF HYPERGLYCAEMIA-RELATED PATHOLOGIES

INFORMATION DISCLOSURE STATEMENT UNDER 37 C.F.R. §§ 1.56, 1.97 and 1.98

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

This information disclosure statement is made in accordance with 37 C.F.R. §§ 1.56, 1.97
and 1.98 as follows:

Timing and Fees

- ☒ Under 37 C.F.R. § 1.97(b), no fee or statement is required for filing this information
disclosure statement is filed:
- ☐ within three months of the filing date of a national application other than a CPA
under § 1.53(d);
- ☒ within three months of the actual filing date of the national phase of a PCT
application; OR
- ☐ before the mailing of a first substantive office action (including after filing of an
RCE).
- ☐ Under 37 C.F.R. § 1.97(c), this information disclosure statement is filed after the periods
specified in 37 C.F.R. § 1.97(b), but before the mailing date of:
- a final rejection under 37 C.F.R. 1.113;
termination of prosecution, e.g. Ex Parte Quayle, M.P.E.P. § 609(B)(2); OR
a notice of allowance under 37 C.F.R. § 1.311; and

is accompanied by:

- ☐ the statement as specified in 37 C.F.R. § 1.97(e) set out below; OR
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- ☐ a final action under 37 C.F.R. § 1.113;
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- ☐ Each item of information contained in this information disclosure statement was cited in a communication from a foreign patent office in a counterpart foreign application having a mailing date not more than three months prior to the filing date of this information disclosure statement; or
- ☐ No item of information contained in this information disclosure statement was cited in a communication from a foreign patent office in a counterpart foreign application, and to the knowledge of the undersigned attorney after making reasonable inquiry, no item of information contained in this information disclosure statement was known to any individual designated in 37 C.F.R. § 1.56(c) more than three months prior to the filing date of the information disclosure statement.

Cited Materials

- ☐ Copies of materials listed but not attached were cited in benefit (35 U.S.C. § 120) ancestor application Serial No. _____, on Form 892 by the Examiner and/or Form 1449 by the applicant; see 37 C.F.R. § 1.98(d).
- ☒ Copies of materials listed but not attached were cited in an international search report dated March 11, 2005.
- ☐ Not required by 37 CFR § 1.98.
- ☐ Copies of the materials listed are attached (except for the foregoing).

Non-English Language References

☒ An English-language search report or equivalent paper from a foreign patent office is provided indicating the relevance of the cited reference(s).

☐ A foreign-language search report from a foreign patent office is provided, and pertinent parts are translated substantively below:

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A = document defining the general state of the art

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P = intercalated document

T = document cited to understand the theory or principle underlying the invention

E = patent document which has the benefit of a date earlier than the filing date and which was published only on or after this filing date

D = cited in the application

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☐ Translation of other relevant information on foreign search report

Other Information

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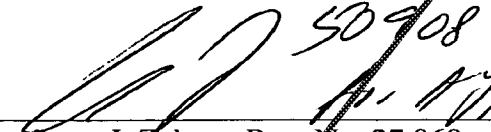
☐ A check for \$_____ covering the fee identified above is attached.

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10/584151
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Respectfully submitted,


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Attorney/Agent for Applicants

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Attorney Docket No.: MERCK-3186

Date: June 22, 2006

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STATEMENT BY APPLICANT**

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Sheet 1 of 2

Complete if Known

| | |
|------------------------|-------------------------------|
| Application Number | US 2004/012662 |
| Filing Date | 01 December 2004 (01.12.2004) |
| First Named Inventor | Gerard MOINET, et al. |
| Group Art Unit | unknown |
| Examiner Name | unknown |
| Attorney Docket Number | MERCK-3186 |

U.S. PATENT DOCUMENTS

| Examiner Initials * | Cite No. ¹ | U.S. Patent Document | | Name of Patentee or Applicant of Cited Document | Date of Publication of Cited Document MM-DD-YYYY |
|---------------------|-----------------------|----------------------|--------------------------------------|---|---|
| | | Number | Kind Code ² (if known) | | |
| | 001 | 5,026,700 | A | HARRISON ET AL. | 06-25-1991 |
| | 002 | 6,025,369 | A | MONAGHAN ET AL. | 02-15-2000 |
| | 003 | 5,942,540 | A | KOZACHUK, WALTER | 08-24-1999 |
| | 004 | 2003/087926 | A1 | BLOMS-FUNKE ET AL. | 05-08-2003 |
| | 005 | 5,245,046 | A | YOUNGDALE ET AL. | 09-14-1993 |
| | 006 | 5,026,700 | A | HARRISON ET AL. | 06-25-1991 |
| | | | | | |
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FOREIGN PATENT DOCUMENTS

| Examiner Initials * | Cite No. ¹ | Foreign Patent Document | | | Name of Patentee or Applicant of Cited Document | Date of Publication of Cited Document MM-DD-YYYY | Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear | T ⁶ |
|---------------------|-----------------------|-------------------------|---------------------|--------------------------------------|---|---|--|----------------|
| | | Office ³ | Number ⁴ | Kind Code ⁵ (if known) | | | | |
| | 007 | WO | 03/010146 | A | KLOTZ ET AL. | 02-06-2003 | | |
| | 008 | EP | 0 400 070 | A | GENJU PHARMA CO | 06-26-1991 | | |
| | 009 | EP | 0 398 283 | A | MERRELL DOW PHARMAC | 11-22-1990 | | 006 |
| | 010 | EP | 2 791 263 | A | MALINA HALINA ZOELA | 09-29-2000 | | |
| | 011 | WO | 2004/007461 | A | PRANA BIOTECHNOLOGY LTD. | 01-22-2004 | | |
| | 012 | WO | 2004/045614 | A | ASTRAZENECA AB ET AL. | 06-03-2004 | | |
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Examiner Signature

/Taofiq Solola/

Date Considered

03/13/2008

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| Filing Date | 01 December 2004 (01.12.2004) |
| First Named Inventor | Gerard MOINET, et al. |
| Group Art Unit | unknown |
| Examiner Name | unknown |
| Attorney Docket Number | MERCK-3186 |

NON PATENT LITERATURE DOCUMENTS

| Examiner Initials * | Cite No. ¹ | Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published. | T ² |
|---------------------|-----------------------|---|----------------|
| | 013 | HARRISON, BOYD L. ET AL: "4-(CARBOXYMETHYL) OXYL- AND 4-(CARBOXYMETHYL) AMINO-5,7-DICHLOROQUINO LINE-2-CARBOXYLIC ACID: NEW ANTAGONISTS OF THE STRYCHNINE-SENSITIVE GLYCINE BINDING SITE ON THE N-METHYL-D-ASPARTATE (NMDA) RECEPTOR COMPLEX" JOURNAL OF MEDICINAL CHEMISTRY, 33(12), 3130-2 CODEN: JMCMAR; ISSN: 0022-2623, 1990, XP001199578 | |
| | 014 | SALITURO, FRANCESCO G. ET AL: "3-(2-CARBOXYINDOL-3-YL)PROPIONIC ACID-BASED ANTAGONISTS OF THE NMDA (N-METHYL-D-ASPARTIC ACID) RECEPTOR ASSOCIATED GLYCINE BINDING SITE" JOURNAL OF MEDICINAL CHEMISTRY, 35(10), 1791-9 CODEN: JMCMAR; ISSN: 0022-2623, 1992, XP001199577 | |
| | 015 | DATABASE CHEMABS 'ONLINE' CHEMICAL ABSTRACTS SERVICE, COLUMBUS, OHIO, US; KOTAKE, YAHITO ET AL: "XANTHURENIC ACID: XVI. INHIBITORY ACTION OF 4-HYDROXY-6-METHOXYQUINOLINE-2-CARBOXYLIC ACID, ETHEREAL SULFATE OF XANTHURENIC ACID, AND KYNURENIC ACID ON THE DIABETOGENIC PROPERTY OF XANTHURENIC ACID" XP002294269, RETRIEVED FROM STN, DATABASE ACCESSION NO. 1958:31214 ABSTRACT & JOURNAL OF BIOCHEMISTRY (TOKYO, JAPAN), 44, 787-95 CODEN: JOBIAO; ISSN: 0021-924X, 1957 | |
| | 016 | CARVALHO ET AL: "ROLE OF ENDOGENOUS ANGIOTENSIN II ON GLUTAMATERGIC ACTIONS IN THE ROSTRAL VENTROLATERAL MEDULLA IN GOLDBLATT HYPERTENSIVE RATS" HYPERTENSION, (2003 OCT) JOURNAL CODE: 7906255. ISSN: 1524-4563; XP008034587 | |
| | 017 | KOTAKE ET AL: "A POSSIBLE DIABETOGENIC ROLE FOR TRYPTOPHAN METABOLITES AND EFFECTS OF XANTHURENIC ACID ON INSULIN" AMERICAN JOURNAL OF CLINICAL NUTRITION, vol. 24, no. 7, JULY 1971, PAGES 826-829, XP000867441; ISSN: 0002-9165 | |
| | 018 | SANDERS ET AL: "L-AMINO ACID INHIBITION OF EPINEPHRINE-INDUCED HYPERGLYCEMIA: PHARMACOLOGY, 6(3), 155-63 CODEN: ISSN: 0031-7012, 1971, XP008034538 | |
| | 019 | STONE ET AL: "ENDOGENOUS KYNURENINES AS TARGETS FOR DRUG DISCOVERY AND DEVELOPMENT" NATURE REVIEWS, DRUG DISCOVERY, AUG 2002, vol. 1, no. 8, PAGES 609-620, XP008034547; ISSN: 1474-1776 | |
| | 020 | EDMONT ET AL: "SYNTHESIS AND EVALUATION OF QUINOLINE CARBOXYGUANIDINES AS ANTIDIABETIC AGENTS" BIOORGANIC & MEDICINAL CHEMISTRY LETTERS, 1831-1834 CODEN: BMCLE8, ISSN: 0960-894X, 2000, XP002294268 | |
| | 021 | NICOLAUS: "SYMBIOTIC APPROACH TO DRUG DESIGN" DECISION MAKIN IN DRUG RESEARCH, 1983, PAGES 173-186, XP002197412 | |

Examiner
Signature

/Taofiq Solola/

Date
Considered

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